

REMARKS

Applicants respectfully submit that no new matter is presented by the present amendment. Claims 1-18 have previously been canceled, and claims 19-30 remain pending in the present application. The following remarks are in response to an Office Action issued on February 16, 2005, where:

1) claims 19-21 and 26 were rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0956960 A2 (hereinafter "Hickman") in view of U.S. Patent No. 5,786,830 (hereinafter "Su");

2) claims 22-23 and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hickman in view of Su, and further in view of U.S. Patent Application No. 2002/0198289 (hereinafter "Gummesson");

3) claim 24 was rejected under 35 U.S.C. 103(a) as being unpatentable over Hickman in view of Su and Gummesson, and further in view of U.S. Patent No. 5,954,866 (hereinafter "Ohta");

4) claims 27-28 and 30 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hickman in view of Gummesson and Su; and

5) claim 29 was rejected under 35 U.S.C. 103(a) as being unpatentable over Hickman in view of Gummesson and Su, and further in view of Ohta.

Reconsideration of the rejected claims is respectfully requested in view of the following remarks.

REJECTIONS UNDER 35 USC 103(a)

The Examiner has rejected claims 19-30 under 35 U.S.C 103(a) as being unpatentable over 1) Hickman in view of Su, 2) Hickman in view of Gummesson and Su, or 3) Hickman in view of Gummesson, Su, and Ohta, cited in various orders. As all rejections include the combination of Hickman and Su, these two references will be discussed specifically and in detail. Further, to the extent that Gummesson and Ohta fail to teach or suggest the missing element(s) of the Hickman and Su combination, these references will also be discussed. This being stated, it is believed that these rejections are based on an erroneous interpretation of the prior art when taken as a whole and applied to the presently claimed invention.

The systems of independent claims 19 and 27 each comprise a pigment-based ink-jet ink and a dye-based ink-jet ink that are “substantially non-reactive” with one another. Further, claims 19 and 27 also specify that the pens be “swappable.” The independent claims have been amended to further clarify that the pens are swappable with one another such that both are not present at the same time. In other words, the term “swappable” means that the first ink-jet pen and the second ink-jet pen are configured to be present one at a time. For example, the pigment-based ink-jet ink pen can be removed from the printhead assembly and replaced with the dye-based ink-jet ink pen, and *vice versa*. As stated in the specification on page 10 lines 3-5, “...a pen containing the black pigment-based ink-jet ink can be replaced with a pen containing a dye-based ink-jet ink...” Other discussion of replacement can be found on page 4, lines 10-13 and on page 9, lines 10-20. This type of language is now explicitly present in the claims, clarifying that “swapping” results in changing or switching out one or more desirable ink type for another ink type, such as by switching cartridges, ink supplies, etc.

In addition, claim 19 also requires “a single service station configured for servicing the first ink-jet pen and the second ink-jet pen.” Because of the swappable nature of the ink-jet pens, the same components (e.g. a wiper and cap as characterized by the prior art) in the service station will naturally come in contact with both pens when one of the pens is used to replace the other pen. This is inevitable because the two pen types are typically placed at the same location on the assembly, only at different times for different purposes. For example, a given wiper and cap will service the pigment-based ink-jet pen until it is swapped for a dye-based ink-jet pen. From that point on, the same wiper and cap will now service the dye-based ink-jet pen. If it were not a requirement of the claims that the pigment-based ink and the dye-based ink were “substantially non-reactive,” then the residue ink on the wiper and cap could react with the other type of ink when the pens were swapped, thus leading to clogging problems.

Hickman Reference

The Examiner has alleged that Hickman differs from the claims of the present invention in that a single service station is configured for servicing the first and second ink jet pen. This statement is only partially true, in that it also lacks any teaching of another key element of the claimed invention, i.e. that the first and second ink-jet pens are

swappable. There is no such teaching or suggestion of this concept in Hickman. More specifically, Hickman teaches of an ink-jet printing system that utilizes reactive inks to obtain enhanced printing results. The system also utilizes a colorless reactant fluid that may be devoid of color or contain a dye or pigment that does not absorb visible light. See column 6 lines 40-45. This reactant fluid reacts with ink-jet inks in the system to enhance the printed image. Hickman also teaches that one of the inks be non-reactive with some of the other fluids or inks. Hickman does not teach, however, a non-reactive ink-jet ink system with a pen containing a pigment-based ink that can be swapped (or replaced) with a pen containing a dye-based ink. Though Hickman teaches using various combinations of reactive and non-reactive inks, and though the order of the pens in Hickman can be configured in various ways to avoid cross-contamination that can occur due to proximity (not by replacement at the same location), the pens are not taught to be swappable in the sense that they might be individually replaced or switched with one another.

Su Reference

Su teaches an adaptive wiping method of cleaning two or more diverse printheads that have different wiping needs. Su utilizes multiple sets of wipers and caps to service multiple printheads. The Examiner has stated that Su teaches a single service station to wipe the first and second printhead. Even if true, this teaching does not read on independent claims 19 and 27 of the present application. In fact, there is no teaching of swapping ink-jet pens with one another in Su. Thus, Su does not cure the defect of Hickman, in that it does not add anything to the missing element of the pens being swappable with one another.

Other secondary references (Gummesson and Ohta)

The Examiner has also rejected other dependent claims by adding other secondary references to the core combination of Hickman and Su. However, as none of these references teach swapping out a first pen for a second pen, these references do not add anything to the key common element(s) of the claimed invention that are missing in both Hickman and Su. More specifically, none of the references cited by the Examiner teach of a single service station configured for servicing the first ink-jet pen, and further being configured for servicing the second ink-jet pen when the first ink-jet pen has been

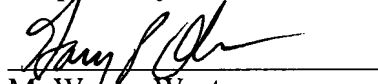
replaced by the second ink-jet pen such that substantially no reaction between the pigment-based ink-jet ink and the dye-based ink-jet ink occurs at the service station. Reconsideration of the rejections on these grounds is also requested.

The Applicants believe that claims 19-30 represent allowable subject matter, and their allowance is respectfully requested. If, for any reason, a telephone interview would be helpful in resolving any issues, the Examiner is invited to call the Brad Haymond at (541) 715-0159.

Please charge any additional fees except for Issue Fee or credit any overpayment to Deposit Account No. 08-2025.

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Respectfully submitted,



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